

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-15. (cancelled)

16. (new) A chaining key broadcasting reception system, comprising:

a chaining key reception unit, the chaining key reception unit configured to receive

i) a first chaining key to decode,

ii) a key identifier identifying the first changing key, and

iii) a target key identifier identifying a second chaining key for decoding the first chaining key;

a chaining key decoding unit receiving, as input, the first chaining key; and

a chaining key management unit in bi-directional communication with the chaining key decoding unit,

the chaining key management unit storing a decoded first chaining key and a key identifier in a pair,

the chaining key management unit configured to retrieve a stored second chaining key paired with a stored key identifier matching the target key identifier and then send the retrieved

second chaining key to the chaining key decoding unit, wherein,
the chaining key decoding unit decodes the first chaining key using the retrieved second chaining key and stores the decoded first chaining key paired with the key identifier in a pair.

17. (new) The system of claim 16, wherein,
the chaining key reception unit comprises a demux, the chaining key management unit comprises a chaining key management module, and the chaining key decoding unit comprises a chaining key decoding module.

18. (new) A chaining key broadcasting reception system, comprising:

a chaining key handler (14) having a first key handler output and a second key handler output;

a chaining key decoding module (15) connected to the first key handler output;

a chaining key management module (16) in bi-directional communication with the chaining key decoding module and connected to the second key handler output;

a content decoding module (17) in bi-directional communication with the chaining key management module and with a decoded contents output; and

a chaining key memory (18) in bi-directional communication with the chaining key management module and storing

a series of chaining key and key identifier pairs,

the chaining key management module configured to

i) receive, from the chaining key handler, a first key identifier and an enciphered first chaining key, and record the first key identifier and the first chaining key, in the chaining key memory, as a first additional pair in the series of pairs,

ii) receive a target key identifier from the chaining key handler, and send a first stored chaining key paired with the received target key identifier from the chaining key memory to the chaining key decoding module,

iii) receive from the chaining key decoding module a second key identifier and a second chaining key, and record the second key identifier and the second chaining key as a second additional pair in the series of pairs in the chaining key memory, and

iv) receive a third key identifier from the content decoding module, and send, from the chaining key memory, a second stored chaining key paired with the third key identifier, to the content decoding module.

19. (new) the system of claim 18, further comprising:

the chaining key handler is connected to receive the enciphered chaining key, the key identifier and the target key identifier as input,

the chaining key handler is configured i) so the target

key identifier being null indicates that the enciphered chaining key is a first chaining key of a series and to send the enciphered chaining key together with the key identifier to the chaining key management module, and ii) so the target key identifier being non-null indicates that the enciphered chaining key is a second or other following enciphered chaining key and to send the target key identifier to the chaining key management module and to send the enciphered chaining key and the key identifier to the chaining key decoding module.

20. (new) The system of claim 18, wherein,
a demux connects to the chaining key handler to form a chaining key reception unit,
the chaining key management module is a chaining key management unit, and
the chaining key decoding module is a chaining key decoding unit.

21. (new) The system of claim 20, wherein,
the chaining key decoding module
i) receives, from the chaining key handler, the enciphered first chaining key,
ii) obtains a new chaining key by decoding the received enciphered first chaining key using the first stored chaining key received from the chaining key management module, and
iii) sends the new chaining key together with another

key identifier to the chaining key management module, and

the content decoding module sends a further key identifier to the chaining key management module to solicit a decoding chaining key paired with the further key identifier and stored in the chaining key memory, the decoding chaining key being to enable decoding of enciphered contents by using the new chaining key obtained from the chaining key management module.

22. (new) A method of decoding content in a chaining key broadcasting reception system, comprising:

a step of receiving a first enciphered chaining key to decode, a key identifier identifying the first changing key, and a target key identifier identifying a second chaining key for decoding the first chaining key;

a step of storing a decoded first chaining key and a key identifier in a pair;

a step of retrieving a stored second chaining key paired with a stored key identifier matching the target key identifier; and

a step of decoding the first chaining key using the retrieved second chaining key and storing the decoded first chaining key paired with the key identifier in a pair.

23. (new) The method of claim 22, wherein,

a final chaining key required to decode an enciphered digital broadcast is decoded only after receiving a series of

chaining keys, the series of chaining keys being sent as part of a program supplied by a broadcast provider so that a broadcast provider limits the decoding of the enciphered digital broadcast to a viewer who has viewed a program supplied by the broadcast provider from a program beginning to a program end or to another viewer who has viewed a serial program supplied by a broadcasting station of the broadcast provider.